

Remarks

Claim Rejections – 35 USC § 101

The Office has presented a rejection of claims 1, 2, 7-9 and 21 under 35 U.S.C. 101 alleging that the claimed invention is directed to non-statutory subject matter. More specifically, the Office alleges that the claims are directed to a system comprising a predictive server and a client agent, and further alleges that page 4 of the specification describes these elements as being software applications. The Office then concludes that the claimed system is merely software. The applicants respectfully disagree.

With regards to claim 1, in paragraph 0013 of the specification, the client agent and predictive server are described as acting as a buffer unit or a temporary storage for a sever response. Either the Client Agent or the Predictive Server may act as a buffer unit, that is, as temporary storage for a server response.

The Office's reference to the text appearing on page 4 of the specification only states that the client agent and/or predictive server MAY be implemented in software – this is merely one embodiment of only a couple aspects of the invention. Paragraph 0013 clearly shows another embodiment in which the client agent and predictive server are hardware systems that include memory for storing data. Software cannot include memory. This is further described in the Abstract and paragraph 0004 which states that certain data can be stored at the client agent or predictive server, again showing that the elements are hardware components capable of providing memory storage.

The applicant further asserts that the amended claim 1 overcomes the rejection of “non-statutory subject matter” since the system in both claims receives data from an external device (a client or a server), process the received data and the processed data is transmitted to another external device (the server or the client, respectively).

Furthermore, the claimed system creates a useful improvement since it enhances perceived throughput between a client and a server and therefore improves the experience of the user of the client while fetching a web page.

Thus, the applicant respectfully requests the Office to remove this basis of rejection.

Finally, claim 1 and claim 2 were amended for more clearly describe a system having at least two elements: a predictive server and a client agent. Each element comprises at least two components: an analyzer unit and a storage unit. At a minimum, the applicant respectfully asserts that the storage unit is obviously a physical element and not software.

With regards to claims 2, 7-9 and 21, these claims depend from allowable claim 1 and are thus also in condition for allowance. Further, because claim 1 meets the requirements of 35 U.S. C. 101, these claims also meet this requirement. As such, the applicants respectfully request the Office to remove this basis of rejection.

Claim Rejections – 35 USC § 112

The Office has presented a rejection of claims 11, 12 and 17-19 under 35 U.S.C. 112 second paragraph as failing to comply with the written description requirement. More specifically, the Office alleges that the term currently requested webpage is not supported in the applicant's specification.

The applicant asserts that the amended claim 11 overcomes the rejection of "Failing to comply with the written description" by replacing the term of "currently requested webpage" with the term "a response to a request for a web page".

Support for the term "a response to a request for a web page" can be found in the specification of the present application in several locations as presented below:

"Stage 1 ends and Stage 2 begins upon the server's receipt of the client's request. After analyzing the request and assuming the server possesses in its storage device the requested data or web page, it generates and transmits a response 340 corresponding to the request. The server's response travels back through the Predictive Server 200, where it is analyzed to determine one or a series of possible subsequent requests the client may transmit. Typically, one of the first responses by a server to a client's request for a web page contains a list of objects present within the page, and instructions as to how to retrieve these objects from the server (e.g. the objects' URLs)." (Page 6 line 21 to page 7 line 4) or:

"... In the case where the original request is for a web page, the series of predictive requests will typically be URL's of the objects contained within the page..." (Page 7 line 11 to page 7 line 12).

Thus, the applicant respectfully submits that this rejection is overcome and the Office's agreement is solicited.

Claim Rejections – 35 USC § 102

The Office has presented a rejection of claims 1, 2, 7-8, 11, 12, 15, 17-18 and 21 under 35 USC 102 as being anticipated by United States Patent Number 7,047,485 issued in the name of Klein. The applicant respectfully disagrees with the Office's position and along with the above-presented amendments, submits that the following arguments clearly support allowance of the claims over the Klein reference.

With regards to claim 1, the office alleges that the web agent 116 running on the web server 112 described in Klein (relying on column 6, lines 10-20 and Fig. 1) is analogous to the predictive server as recited in claim 1. Furthermore, the Office alleges that the applet 124 running on the client 104 described in Klein (relying on column 6 lines 64-67 and Fig. 1) is analogous to the client agent recited in claim 1. However, the applicant contends that the predictive server and the client agent as recited in claim 1 are not described, suggested or taught either in Klein or the provisional application from which Klein claims priority.

As recited in claim 1, the predictive server includes the functionality of (a) receiving a first response from the server in response to the server acting on a request for a web page; (b) analyzing the first response to generate a predictive lists of requests for objects which are needed for presenting the requested web page; (c) issuing predictive requests to the server; (d) receives predictive responses from the server and (e) forwards the first response and the received predictive responses to a client agent.

(a) Klein does not describe, suggest or teach the element of a predictive server that receives a first response from the server. The Office asserts that in Column 5 lines 28-38 Klein teaches that the web agent 116 (comparing the web agent 116 to the predictive server) receives a first response. The applicant respectfully disagrees with the Office on this point. The cited passage, as well as the entire Klein reference only teaches that the web agent 116 receives a request for a web page, not a first response. The Office is directed to the following text that appears at Column 5 lines 28-38 of Klein:

“Starting with an interaction at Web Browser 110 such as the click of a cursor control device 108 or mouse, <ENTER> key or other selected keyboard operation, a

transaction is generated that will request a web page from Web Server 112 and possibly that of the Application Server 114 instead. The transaction is sent to Web Server 112 across network 102 which can be the Internet/Internet or any other private network). Once the transaction is at Web Server 112, a decision will be made by Web Server 112 to route the transaction to Application Server 114 for additional service, or Web Server 112 may service this transaction locally”

With all due respect, the applicant cannot understand how this paragraph teaches or suggests that the predictive server (which according to the Office is equivalent to the web agent 116) received a first response from the server. Since **both terms (the web agent and the first response) are not mentioned in this paragraph.**

Rather, the applicant points out that what Klein does teach, is that in response to this initial request, a tag is embedded in the requested web page and transmitted to the web browser 110. This tag is used at the web browser 110 to launch the applet program 124 under the control of the web browser 110 (col. 5 line 40 to col. 6 line 9). This applet then and only then interacts with web agent 116 to retrieve statistical information that relates to which web page is most often accessed directly after the current web page being viewed at web browser 110. In addition, the web agent 116 may provide an object list of web page objects that is ordered in statistical significance (col. 6 lines 10-22).

According to the understanding of the applicant text relied on by the Office teaches that a **first request** to a web page is received **by a web server**. The applicant assert that the first request to a web page is different from a first response since the **first request** to a web page is sent **from a client** and usually it is based on a hyper text protocol such as **HTTP**, for example. While a **first response** is sent from **the web server** to the client and usually it is based on **markup language** such as **HTML**, for example. **Therefore, a first request and a first response are not interchangeable.**

The applicant wants to carefully point out how what is taught in Klein is very different from the present invention. The web agent 116 is not operating as the claimed predictive server. The web agent 116 is never described as receiving a first response from the server in response to the server acting on a request for a web page. As such, the web agent 116 obviously cannot perform the additional steps outlined above because each of them first requires the web agent 116 to have received and acted upon the first response.

(b) Klein does not describe, suggest or teach the element of a predictive server analyzing the first response to generate a predictive list of requests for objects which are needed for presenting the requested web page. As previously presented, the web agent 116 in Klein does not receive a first response and as such, cannot and does not analyze the first response.

However, the Office asserts that at Column 6 lines 10-29, Klein teaches that the web agent 116 (which according to the office is analogue to the predictive server) analyzes the received **first response to a request** for a web page (usually a markup language file) in order to create a predictive list of requests for objects which are needed for presenting the requested web page. The applicant respectfully disagrees with the Office. The text relied on by the Office (Column 6 lines 10-29 Klein) states:

*“Once Java Applet 124 initializes, a request is made by Java Applet 124 over network 102 to **Web Agent 116** running under control of Web Server 112. The nature of the request is to retrieve from Web Agent 116, statistical information that **relates to which web page is most often accessed directly after the current web page** being viewed at this moment in Web Browser 110. In addition to the web page most likely to be accessed next, Web Agent 116 provides an Object List 126, to Java Applet 124 of Web Page Objects 128 that is ordered in statistical significance (high to low). Objects 128 can be graphics, applets or other web page content. Java Applet 124 retrieves Object List 126 over network 102 and begins its pre-caching logic upon it.*

For each Web Object 128 in Object List 126, Java Applet 124 dispatches a program thread inside Web Browser 110, a thread that runs independent and does not interfere with any other Web Browser 110 normal activity. Java Applet 124, under this program thread, makes a request for that Web Object 128 over network 102. Web Server 112 services this request and delivers to Java Applet 124, over network path 102, the requested Web Object 128”

With all due respect, the applicant cannot understand how the Office concludes that this paragraph teaches or suggests that the web agent 116 (which according to the examiner is equivalent to the predictive server) analyzes the received first response from the server in order to create a list of predictive requests. **The cited paragraph does not teach or suggest how the**

object list 126 is created. The cited paragraph teaches how the java applet 124 requests to retrieve, from the web agent 116, **statistical information** that relates to which web page is most often accessed directly after the current web page being viewed at this moment in Web Browser 110. In response the web agent sends an object list 124. The rest of the paragraph teaches how the java applet handles the object list. **The applicant cannot find any hint as to how the object list is created.**

The applicant asserts that Klein in column 7 line 62 to column 9 line 16 teaches how the web agent 116 creates a web agent table 134 from which an object list 126 is cut as portion of the web agent table 134 that relates to a requested web page. According to Klein, **the table includes statistical information** as it is written in column 8 line 50 to column 9 line 8:

*“Each Web Object 128 has an associated referencing web page name (URL). The web page name is hashed into **Web Agent Table 134** and the slot that keeps its information is located. This slot points to a portion of memory that contains Web Agent Table Entry 136, **which holds the web page statistical information.***

*The current web page has associated with it a referring web page--referring pages indicate what page the current page came from. The referring Web Page Agent Table Entry 136 is located (via hashing) and updated to reflect that this current web page came from it. **Based on the number of times this current page has been accessed** by all Web Browsers 110, its referring Web Agent Table Entry 136 has its **corresponding counts adjusted and its content ordered by most linked nest pages to least linked web pages.** The names of each Web Object 128, in the current web page are maintained as part of referring Web Agent Table Entry, 136's as well. **When completed, Web Server 112 contains a relationship between each of its web pages and the statistical pages accessed next--ordered by pages and their Web Objects 128. For example: Web Page (A) links to Web Page (C) 80% of the time, Web Page (B) 10% and Web Page (D) 10%.** Thus, if the current page is (A), then pre-caching the Web Objects 128 from (C) before (B or A) makes the most sense. And this statistical relationship is constantly updated with each web page request that Web Server 112 processes.*

*Each time Java Applet 124 requests an **Object list 126** from Web Agent 116, **a subset of***

the Web Agent Table Entry 136 is returned. Web Agent 116 takes the name of Java Applet 124's web page, which is a URL address, and hashes it into Web Agent Table 134 and resolves to Web Agent "fable Entry 136. A copy is made of this entry 136 and the Java Applet 124 processes this as part of intelligent pre-caching"

According to the above cited paragraphs, the **object list used by Klein is created based on statistical method and not by parsing a received first response to a request for a web page.** Therefore, Klein fails to describe a second feature of the predictive server.

(c) Klein does not describe, suggest or teach the claimed element of issuing predictive requests to the server and

(d) Klein does not describe, suggest or teach the claimed element of receiving predictive responses from the server.

The Office alleges that Column 6 lines 24-36 and Column 5 lines 35-38 of Klein teaches that the web agent 116 (which according to the office is analogue to predictive server) issues predictive requests to the server and receives predictive responses from the server. The applicant respectfully disagrees with the Office. First of all, without including the elements of receiving a first response and then analyzing the first response, the web agent 116 does not and cannot issue predictive requests to the server and receive predictive responses. Furthermore, column 6 lines 24-36 of Klein state:

*"For each Web Object 128 in Object List 126, **Java Applet 124 dispatches a program thread inside Web Browser 110, a thread that runs independent and does not interfere with any other Web Browser 110 normal activity. Java Applet 124, under this program thread, makes a request for that Web Object** 128 over network 102. Web Server 112 services this request and delivers to Java Applet 124, over network path 102, the requested Web Object 128. Then **Java Applet 124** copies Web Object 128 into Web Browser Cache 130 where it will reside and be made available to Web Browser 110 on subsequent Web Browser 110 transactions. Thus, Web Object 128 is made available before actually needed by Web Browser 110"*

With all due respect, the applicant cannot understand how the Office concludes that this paragraph teaches any feature that is related to the web agent 116 (which the office claims in

analogous to the predictive server) since the term web agent does not appear in this paragraph. The above paragraph only refers to the Java applet 124, which the Office asserts is analogous to the client agent – not the predictive server.

The Office also cites column 5 lines 35-38 in Klein which reads:

*“...Once the transaction is at **Web Server 112**, a decision will be made by **Web Server 112** to route the transaction to Application Server 114 for additional service, or Web Server 112 may service this transaction locally”*

Again not only is the term **web agent** not mentioned, the cited paragraph does not describe, suggest or teach anything similar to the claimed element. The cited paragraph teaches how the web server decides to route a request for a web page. This paragraph teaches nothing about the web agent, nor the ability for the web agent to send predictive requests to the server and received predictive responses.

(e) Klein does not teach the element of forwarding the first response and the received predictive responses to a client agent. As clearly shown above, Klein does not describe the element of a predictive server that receives a first response or that receives predictive responses. As such, Klein does not and cannot teach the element of forwarding something that was never received to the client agent.

The Office has clearly found art that is in the same field of the claimed invention but, the applicant respectfully suggests that the Office is trying to squeeze a round peg into a square hole in this case. The Office attempts to form an analogy between the claimed components of a predictive server and a client agent with the Klein elements of a web agent 116 and an applet 124. However, in this situation the analogy falls quite short in that elements that are clearly recited in the claims are not and cannot be met by the structure described in the Klein reference. The web agent 116 does not include at least 5 of the elements of the claimed predictive server as recited in claim 1. Therefore, the applicant respectfully submits that claim 1 is allowable and requests the Office’s consideration.

With regards to claims 2, 7, 8, 9 and 21, these claims are dependent claims that depend either directly or indirectly from allowable claim 1 and as such, are also in condition for allowance.

With regards to claim 11, this is an independent claim and, similar to claim 1, the cited reference does not describe, suggest or teach at least 5 elements that are recited in the claim with respect to the predictive server. As such, the applicant respectfully submits that claim 11 is in condition for allowance.

With regards to claims 12, 15, 17, 18 and 19, these claims are dependent claims that depend either directly or indirectly from allowable claim 11 and as such, are also in condition for allowance.

Conclusion

The applicant has presented amendments to more particularly clarify the claims, and has presented detailed arguments as to why the current rejections are not warranted. The applicant submits that the presented claims are allowable and such action is sought of the Office. If the Office has any questions or if there are any actions that can be handled through an Examiner's Amendment, the applicant requests the Office to contact the attorney of record using the below-provided contact information.

Respectfully submitted,

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